(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
18 March 2004 (18.03.2004)

PCT

(10) International Publication Number
WO 2004/023719 A2

(51) International Patent Classification[7]: H04L 12/00

(21) International Application Number:
PCT/IL2003/000741

(22) International Filing Date:
8 September 2003 (08.09.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/408,906 9 September 2002 (09.09.2002) US

(71) Applicant *(for all designated States except US)*: **SHEER NETWORKS INC.** [US/US]; 555 N. Mathilda Ave., Suite 9, SUNNYVALE, CA 94085 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **NOY, Ariel** [IL/IL]; 20 Ezra Hasofer St., 46371 Herzliya (IL). **KIBEL, Danny** [IL/IL]; 24 Yavne'el St., 53603 Givatayim (IL).

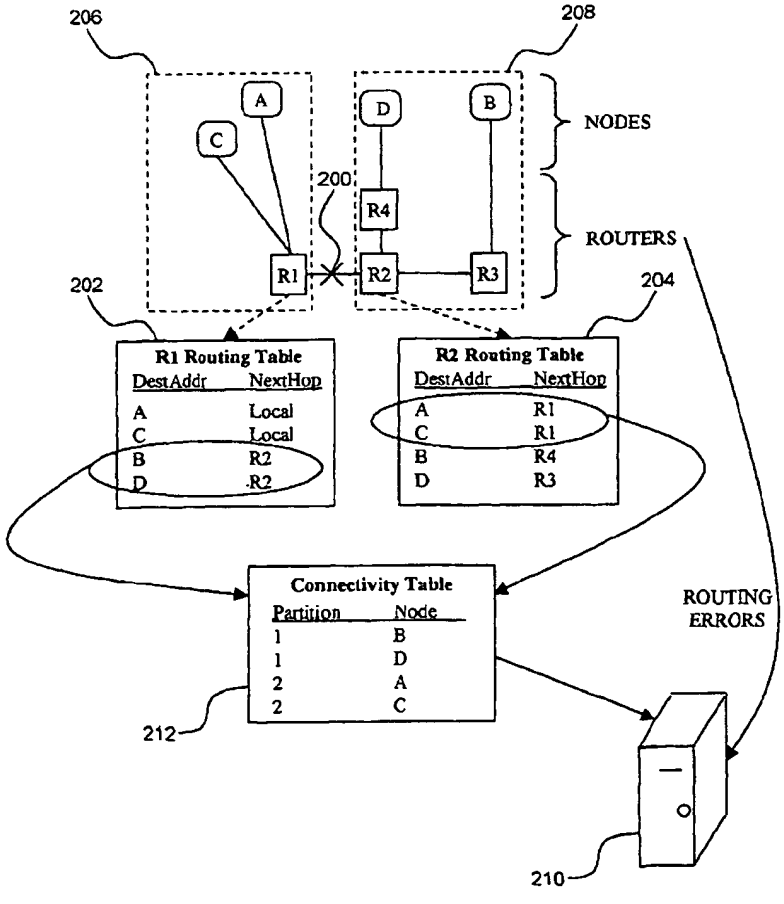
(74) Agent: **SWIRSKY, Daniel**; AlphaPatent Associates Ltd., P.O.B. 2345, 99544 Beit Shemesh (IL).

(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,

[Continued on next page]

(54) Title: ROOT CAUSE CORRELATION IN CONNECTIONLESS NETWORKS



(57) Abstract: A method for correlating routing errors to link failures in a network, the method including detecting a link failure between a first and a second router in a network, associating a first node address indicated in a first routing table of the first router with a first partition of the network, where a next hop of a packet destined for the first node address is the second router, associating a second node address indicated in a second routing table of the second router with a second partition of the network, where a next hop of a packet destined for the second node address is the first router, and correlating an error notification resulting from the failed delivery of a packet with the link failure where a source address of the packet corresponds to the first node address and a destination address of the packet corresponds to the second node address.

WO 2004/023719 A2